BEFORE THE

STATE CORPORATION COMMISSION

OF VIRGINIA

Application of	)	
	)	
Verizon Virginia Inc.	)	**Case No. PUC-2007-_____**
and	)	
Verizon South Inc.	)	
	)	
For a Determination that Retail Services Are	)	
Competitive and Deregulating and Detariffing	)	
of the Same	)	

RICHMOND (RICH)

EXHIBITS

PUBLIC VERSION

Richmond (RICH) Exhibits

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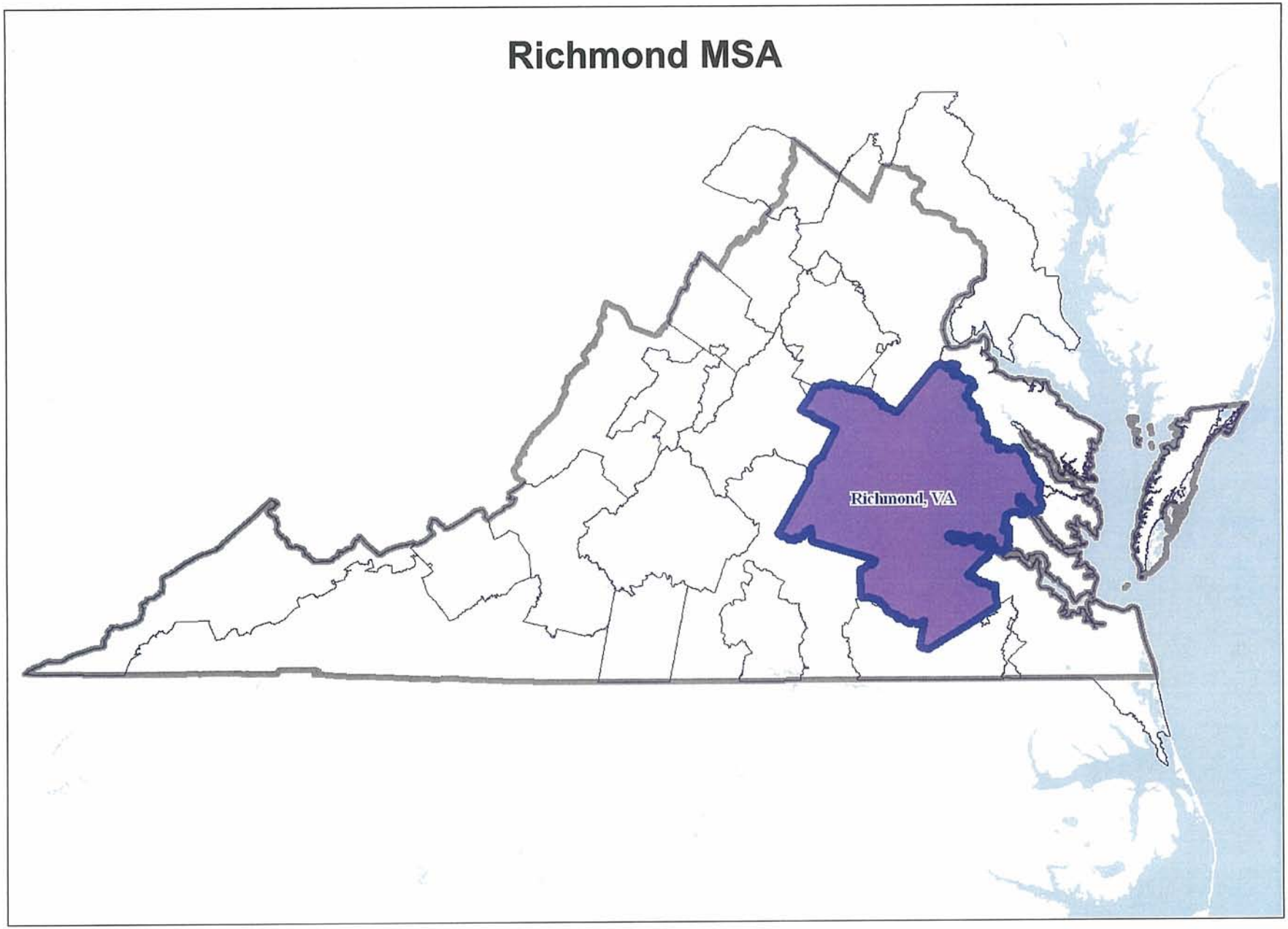
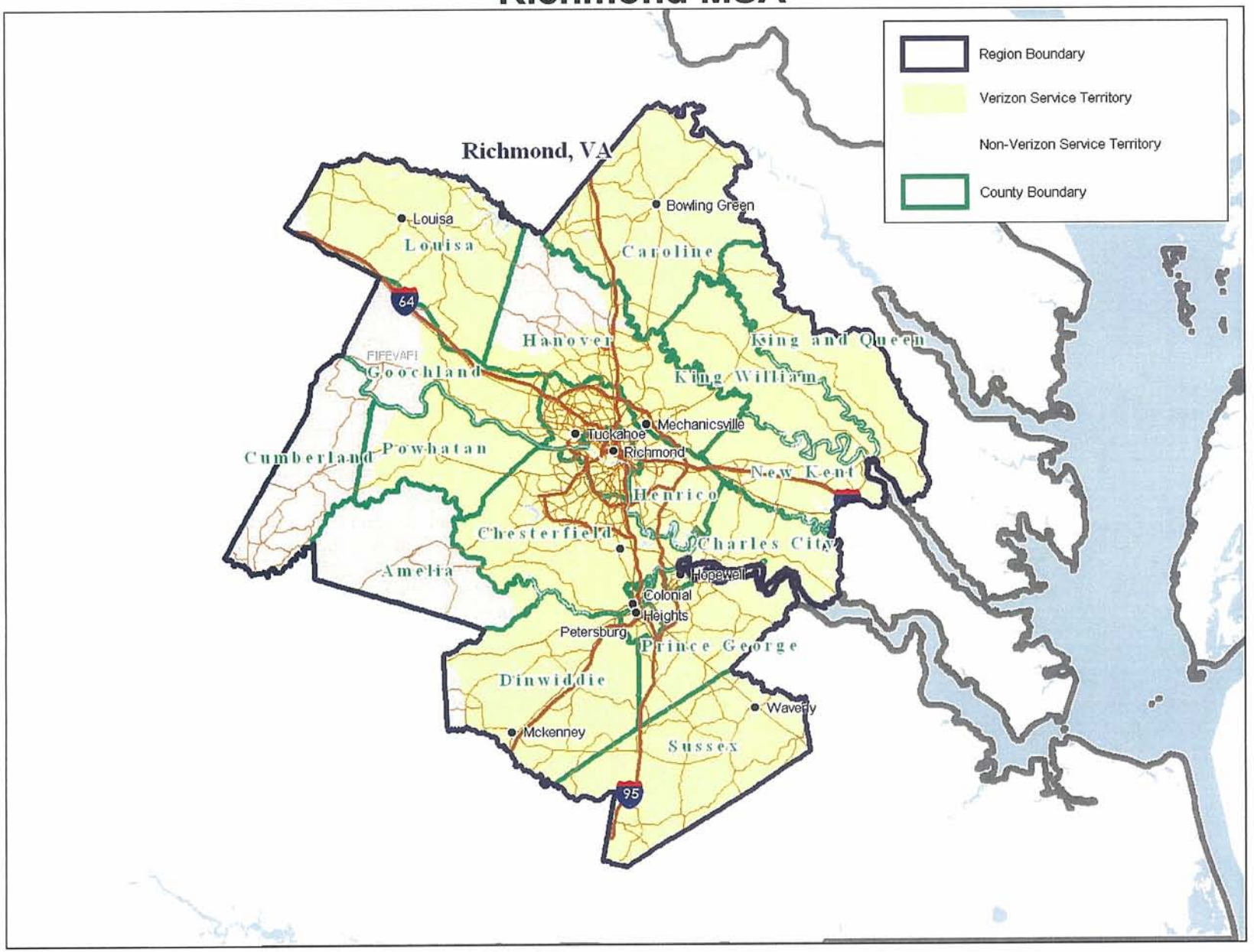
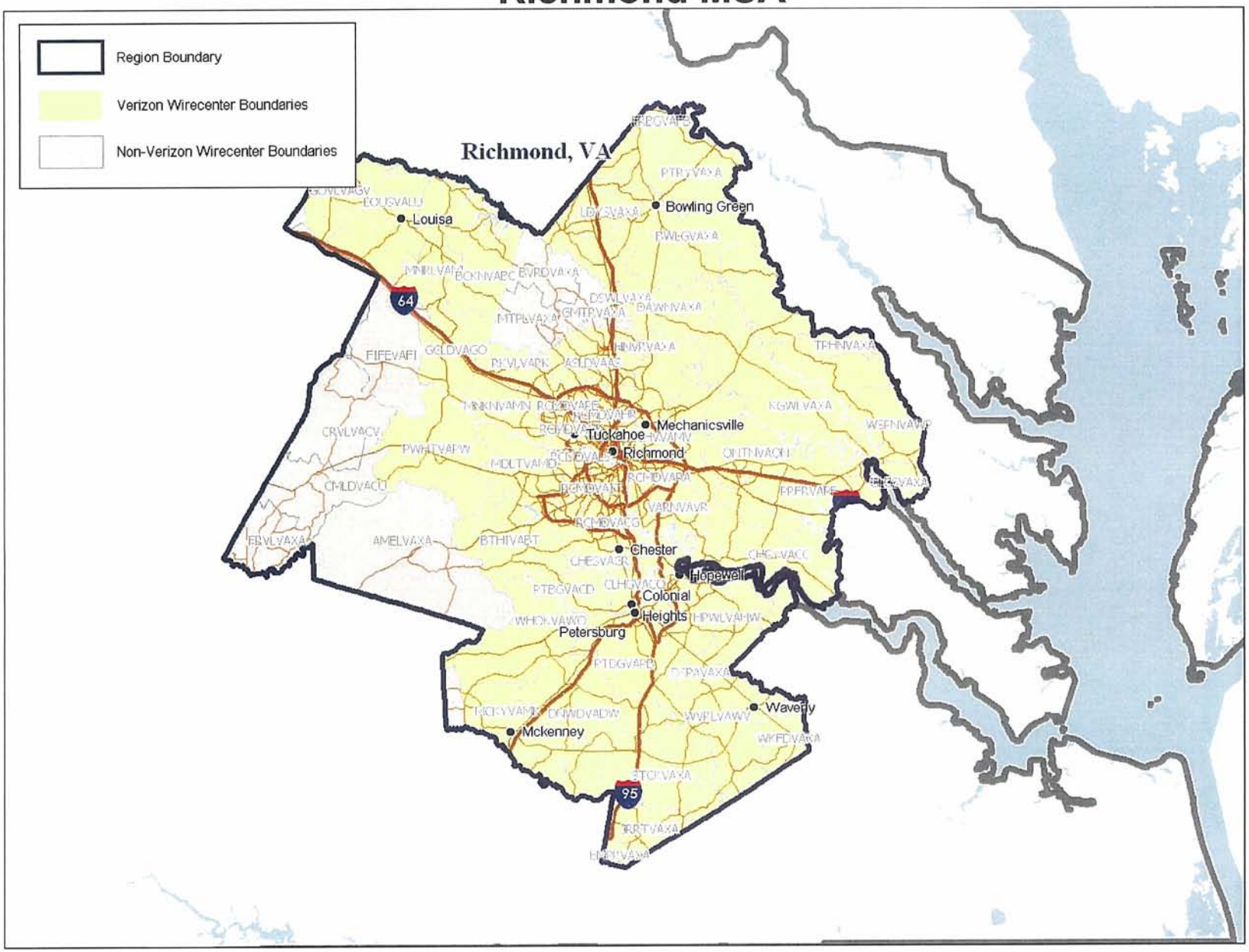
RICH-1


Richmond MSA
Richmond, VA

Richmond MSA



Richmond MSA



RICH-2

Exhibit RICH-2

COMPETITION AND POTENTIAL COMPETITION FOR RETAIL TELECOMMUNICATIONS SERVICES IN VERIZON'S RICHMOND MSA SERVICE TERRITORY

Report of Jeffrey A. Eisenach, Ph.D.
January 17, 2007

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I. OVERVIEW

Verizon's service territory in the Richmond region consists of 4,914 square miles, with a population of 1,132,813 living in 445,108 households as of 2006; there are 45,276 business establishments.[1] The average population density is 231 persons per square mile, and the median household income is $58,506.[2] Verizon operates 53 wire centers in the region.[3]

The Richmond region is located in the 434, 540 and 804 area codes. It is bordered on the north by the North, Washington-Arlington-Alexandria, and Northern Neck regions, on the south by the Virginia Beach-Newport News and Southside regions, and on the west by service territories served by Embarq and by the Amelia Telephone Company, which is a subsidiary of TDS.

The Richmond region is diverse, covering highly urbanized territories around Richmond and Petersburg as well as rural territories such as Caroline and Louisa Counties. Its most densely populated wire centers, in Richmond, have population densities in excess of 3,400 persons per square mile, while its most sparsely populated wire center, in Caroline County, has the lowest population density wire center in Verizon's Virginia service territory, with only 1,400 residents spread out over 143 square miles (for a population density of 10 persons per square mile).[4]

Competition for telecommunications services is intense throughout the Richmond region. Multiple competitors serve every area within the region, using traditional wireline, cable, mobile wireless, and fixed wireless technologies. Facilities based competition is widespread, with companies such as **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL] of all residential lines, are served by carriers other than Verizon, and the percentage is growing rapidly.

Mobile wireless coverage is ubiquitous, and mobile broadband (3G) service is available from Sprint as well as from Verizon. Nine out of ten households have access to cable modem broadband service, and fixed wireless broadband coverage, including bundled VoIP service offered by Virginia Broadband, is available over a large and growing portion of the region.

There are no barriers to entry into the Richmond region. Recently there has been significant entry, and more is expected. Cox and Comcast have already deployed cable telephony services in much of the area and the other cable carriers serving the region (including Charter and the Comcast franchises previously served by Adelphia) are well positioned to do so in the near future. Fixed wireless broadband and VoIP carriers have recently begun offering

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1. *See* Exhibit RICH-4.
2. *See id.*
3. *See* Exhibit RICH-3.
4. *See* Exhibit RICH-4.

services, and one, VABB, has announced plans to dramatically expand its service territory. Similarly, the Central Virginia Electric Cooperative, which serves customers in Cumberland, Goochland and Louisa counties, has announced plans to deploy BPL services throughout its service territory. In response to this competition, Verizon has announced plans to roll out its FiOS FTTP services throughout much of the region.

The analysis below of the availability and usage of existing alternative services, and of the conditions associated with potential competition and new entry, demonstrates that competition already regulates the prices of Verizon's retail telephony services in the Richmond region, and that further entry and even more intense competition is a virtual certainty.

II. AVAILABILITY OF ALTERNATIVE SERVICES

All 445,108 households in the Richmond region and all 45,276 businesses in the Richmond region have the option to obtain alternatives to Verizon's BLETS, OLETS and Bundled Services from competitive providers. Facilities-based competition is widespread, and includes both traditional CLECs and cable providers, but a large number of CLECs also provide services through resale and/or Wholesale Advantage agreements. Mobile telephone service is ubiquitous, and broadband service is nearly so.

A. Traditional CLECs[5]

Traditional CLECs provide robust competition throughout the Richmond region, and facilities-based competition is widespread.

[BEGIN CONFIDENTIAL]

[END CONFIDENTIAL][7]

Importantly, Cavalier, **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL] has recently rolled out its "triple play" service, offering over 150 channels of video, plus high-speed broadband and a full voice bundle, for $95.95 per month[8] to approximately 250,000 households.[9] Cavalier's product relies on fiber connections to central offices and delivery of video using

5. Here and in the remaining sections of this report, unless otherwise indicated, "traditional CLEC" refers to CLECs other than cable companies. "CLEC" refers to both traditional CLECs and cable companies.
6. *See* Exhibit RICH-15 and Exhibit RICH-17. The E-911 data includes lines that are unable to be assigned to a wire center. These unassignable lines are included in the aggregate competition information. This leads to some under representation of E-911 lines when broken out by wire center.
7. *See* Exhibit RICH-4 and Exhibit RICH-15.
8. Cavalier, Triple Play, http://www.cavtel.com/broadbandtv/packages.shtml (last visited Nov. 20, 2006).
9. *See id.*

MPEG-4 compression technology[10] over last-mile copper UNE loops leased from Verizon. Cavalier's offering places the company in direct competition with Comcast and the other cable companies, as well as Verizon, which has recently begun rolling out its own triple-play offering using Direct TV and began offering video using its FiOS technology late last year.

In addition, all households and businesses in the Richmond region can receive service from traditional CLECs through resale and/or Wholesale Advantage services available from Verizon.[11] As of March 2006, **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL]

Altogether, a total of **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL].[14]

B. Cable Telephony

Four cable companies serve the Richmond MSA: Charter, Comcast (including former Adelphia franchise areas), Cox, and MetroCast Communications.[15] Comcast's original service territory includes 75.3 percent of the households, and its former Adelphia service territory includes 11.7 percent, of all households in the region. Cox and Charter territories each include about one percent of the households, and MetroCast's service territory includes 0.2 percent of the households.[16] Comcast offers cable telephony in 329,181 households (98.2 percent of its original service territory),[17] and has announced plans to deploy cable telephony to the former Adelphia service territory. Cox offers cable telephony everywhere in its service territory.[18] Thus, 75 percent of households have cable telephony service now, and 87 percent of households will have cable telephony when Comcast completes its deployment in the former Adelphia service

10. Cavalier, Broadband TV, http://www.cavtel.com/broadbandtv/how_it_works.shtml (last visited Nov. 20, 2006).
11. *See* Exhibit RICH-16.
12. *See* Exhibit RICH-15.
13. *See id.*
14. *See* Exhibit RICH-14.
15. *See* Exhibit VA-10 and Exhibit RICH-7.
16. *See id.*
17. *See* Exhibit VA-10 and Exhibit RICH-9.
18. *See id.*

territories.[19] The Charter and MetroCast infrastructures are both capable of providing cable telephony with *de minimus* investment, and both companies are in the process of deploying cable telephony throughout their service territories.[20]

C. Mobile Telephony

Of the 445,108 households in the Richmond region, virtually 100 percent have access to at least two or more CMRS providers.[21] In addition to Verizon Wireless, there are six CMRS providers offering BLETS and OLETS in the Richmond region. They are Alltel, Cingular, NTELOS, Sprint, T-Mobile, and US Cellular.[22]

As of 2006, there are 379 cellular towers in the Richmond region.[23] Of these, 44 have been constructed since 2004.[24] There is at least one cellular tower located in the area served by 51 of the 53 Verizon wire centers.[25]

D. Broadband and VoIP

Increasingly, consumers are choosing to combine stand-alone broadband Internet access with VoIP services provided by "bring your own access" companies, thus creating their own bundles of broadband and retail telephony services. Both broadband and VoIP services are available to approximately nine out of ten Richmond region households and businesses.

Cable Modem and DSL Service: All four cable companies in the region, Charter Comcast, Cox, and Metrocast Communications, offer cable modem service throughout their service territories in the Richmond region,[26] serving 89.4 percent of all residences.[27] In addition, Verizon makes DSL service without voice available to retail customers for $26.99 per month, and FiOS service without voice is available for $39.95 per month. DSL service is available to **[BEGIN CONFIDENTIAL]** **[END CONFIDENTIAL]** of households.[28]

Fixed Wireless Service: In addition to wireline cable modem, DSL and FiOS service, approximately 48 percent of households have access to fixed wireless broadband services.[29] Providers include:

- BlueBB: BlueBB offers fixed wireless services to the Richmond MSA.[30] Services begin at 128 Kbps for $89 per month, ranging up to 1 Mbps for $349 per month.[31]

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19. *See id.*
20. *See* Jeff Baumgartner, *Metrocast Picks VoIP Dance Partner*, CED – MAGAZINE OF BROADBAND TECHNOLOGY (Oct. 24, 2005), *available at* http://www.cedmagazine.com/toc-bbdirect/2005/20051024.html. *See also* West Testimony at 23 citing Bernstein Research.
21. *See* Exhibit RICH-12.
22. *See* Exhibit RICH-11.
23. *See* Exhibit RICH-10.
24. *See id.*
25. *Compare* Exhibit RICH-3 and Exhibit RICH-10.
26. *See* Exhibit VA-10 and Exhibit RICH-8.
27. *See id.*
28. *See* Exhibit VA-4.
29. *See id.*

BlueBB targets small businesses, and higher speed connections are available on a quote basis.

- Virginia Broadband: Virginia Broadband ("VABB") offers wireless broadband service in Caroline County from its towers in Bowling Green.[32] VABB's broadband services range from 400 Kbps to 800 Kbps to 1.2 Mbps, with prices of $49.50, $69.50, and $89.50 respectively,[33] and it offers to quote prices for up to 15 Mbps.[34] VABB has also recently begun providing VoIP services to customers of its fixed wireless broadband services. VABB's VoIP services are available to residential customers for $32.95 per month and to businesses for prices beginning at $31.95 per seat for large businesses and $44.95 per month for small businesses. These prices include unlimited long distance service throughout the Continental United States and Canada Virginia, as well as a full package of enhanced features such as voice mail and three-way calling.[35]

While some of the firms (e.g., Comcast, VABB) above offer bundles that include VoIP services, customers also have the option of purchasing alternatives to Verizon's BLETS, OLETS and Bundled Services from by-pass VoIP companies. VoIP providers that offer telephone numbers in the 434, 540 and 804 area codes include at&t, Net2Phone, Packet8, SunRocket, and Vonage.[36]

E. Overall Availability of Alternative Platforms and Competitors

Looking overall at the availability of service from alternative platform providers (i.e., from mobile wireless, cable modem, DSL, facilities-based CLECs and fixed wireless), 100 percent of all households in the Richmond MSA have service available from at least one alternative platform provider and 89 percent have service from three or more alternative platforms.[37]

Similarly, looking overall at the availability of service from all competitors – i.e., the same measure as above, but counting each competitor separately (e.g., counting each CMRS provider separately), competition is even more extensive: 100 percent of households have competitive alternatives from at least two competitors, and 86 percent have access to service from eight or more Verizon competitors.[38]

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30. Blue Broadband, www.bluebb.com (last visited July 21, 2006).
31. *See id.* at http://www.bluebb.com/step2.asp (last visited July 21, 2006).
32. *See* Virginia Broadband LLC, Coverage Area, http://www.vabb.com/blgcov.htm (last visited Nov. 21, 2006).
33. Virginia Broadband LLC, VABB Service Levels, http://www.vabb.com/offline/services.htm (last visited Nov. 21, 2006).
34. Virginia Broadband LLC, What is Wireless Broadband?, http://www.vabb.com/offline/wireless.htm (last visited June 7, 2006).
35. *See id.* at http://www.vabb.com/services_home.htm (last visited Nov. 21, 2006); *Id.* at http://www.vabb.com/services_work.htm (last visited Nov. 21, 2006).
36. *See* West Testimony at 81.
37. *See* Exhibit VA-4 and Exhibit RICH-5.
38. *See* Exhibit VA-5 and Exhibit RICH-6.

III. USAGE OF ALTERNATIVE SERVICES

Verizon's internal data shows that at least **[BEGIN CONFIDENTIAL] [END CONFIDENTIAL]** of wireline telephone lines in the Richmond region were being served by competitors as of March 2006, and past trends would indicate that that proportion would have increased in the intervening months. However, these figures understate the true market share of competitors, since they fail to account for intermodal competition from wireless and broadband.

Survey data indicates that **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL] of households subscribe to broadband. Taking intermodal competition into account, the data presented below show that Verizon voice lines now account for only 31.2 percent of all wireline telephony, wireless telephony and broadband connections in the region.

Time series data presented at the end of this section also shows that Verizon's wireline market share is falling, both in proportion to the number of wirelines served and relative to the number of households in the region. Taken together, the data presented in detail below demonstrates that the competitive alternatives described in Section II represent viable alternatives for Verizon's BLETS, OLETS and Bundled Services in the Richmond region, since customers are actually switching to them in large numbers.

A. Traditional CLECs and Cable Telephony

As detailed in Exhibit RICH-15, a total of **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL] [41]

These figures are consistent with the survey data presented by Mr. Newman, which shows that **[BEGIN CONFIDENTIAL] [END CONFIDENTIAL]** of residential customers in the Richmond region are using providers other than Verizon.[42] In large MSAs (including the Richmond region), the survey data shows that 27 percent of POTS business customers and 37.6 percent of all business customers are using other providers.[43]

Exhibit RICH-15 also demonstrates that wireline competition is ubiquitous throughout the Richmond region. It shows that competitors are actually serving **[BEGIN**

39. This figure does not include approximately six percent of the population (who by definition were not reached through Verizon's telephone survey) who have cut the cord altogether. *See* West Testimony at p. 68, n. 84.
40. *See* Exhibit RICH-15.
41. *See* Exhibit RICH-19.
42. *See* Exhibit VA-21.
43. *See* Exhibit VA-20.

CONFIDENTIAL] **[END CONFIDENTIAL]** of the 53 wire centers in the Richmond region, including the smallest and most rural wire centers.[44] Furthermore, facilities-based competition is also widespread, with cable companies (using only their own facilities) and traditional CLECs (using ***at most*** Verizon's last mile facilities) serving customers in **[BEGIN CONFIDENTIAL]** **[END CONFIDENTIAL]** of the 53 wire centers.[45] These data demonstrate that alternatives to Verizon's BLETS, OLETS and Bundled Services from wireline competitors are available and in widespread use by both residential and enterprise customers throughout the Richmond region.

B. Mobile Telephony

The survey data presented by Mr. Newman shows that **[BEGIN CONFIDENTIAL]** **[END CONFIDENTIAL]** of households in the Richmond region purchase telephone service from mobile telephone companies.[46] **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL] [47]

While Mr. Newman's testimony does not provide data on business usage of mobile telephones specifically for the Richmond region, it does indicate that the proportion of businesses in large MSAs (including the Richmond region) which purchase mobile telephone service is 57.9 percent,[48] and that 17.7 percent of business respondents consider their mobile telephone to be their primary means of voice communication.[49]

These figures do not include mobile telephone customers who have dropped their wireline service altogether, as these customers were not eligible for the telephone survey. As Mr. West's testimony indicates, national estimates suggest that approximately six percent of residential customers have "cut the cord."[50]

Again, these figures demonstrate that the mobile wireless alternatives available to consumers in the Richmond region function as actual, viable alternatives to Verizon's BLETS, OLETS and Bundled Services.

C. Broadband and VoIP

The survey data presented by Mr. Newman show that **[BEGIN CONFIDENTIAL]**

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44. *See* Exhibit RICH-15.
45. *See* Exhibit RICH-15.
46. *See* Exhibit VA-21.
47. *See id.*
48. *See* Exhibit VA-20.
49. *See id.*
50. *See* West Testimony at 65.

[END CONFIDENTIAL]

The fact that a significantly higher percentage of households use cable modem service than DSL – even in the presence of a second major residential-focused facilities-based CLEC **[BEGIN CONFIDENTIAL]** **[END CONFIDENTIAL]** demonstrates how successful cable companies in the Richmond region have been in at least the second (data) leg of their triple play offerings, and show the magnitude of the competitive challenge facing Verizon as it tries to retain customers in the face of cable's "triple play" cable telephony offerings.

The survey data presented by Mr. Newman show that in large MSAs in Virginia (including the Richmond region), 73.5 percent of businesses subscribe to high-speed broadband service.[52]

These overall usage rates for broadband demonstrate that the broadband plus VoIP "build your own bundle" option is available today to the vast majority of both residences and businesses in the Richmond region.

D. Overall Penetration of Wireline and Intermodal Competition

While it is not possible to estimate precisely the number of lines Verizon has lost to wireline and intermodal competitors, it is clear that competition is having a significant impact on Verizon's market share, both in terms of wireline telephony and the overall markets for retail services, and that wireline competitors are winning a growing proportion of customers. The data also indicate that intermodal competitors are winning a growing proportion of customers from wireline carriers of all types (i.e., including both Verizon and the traditional CLECs and cable telephony providers).

Both Verizon's line count and its wireline market share in the Richmond region are dropping rapidly. As indicated in Figure 1 below, between December 2003 and March 2006 (i.e., in 27 months), the ratio of Verizon lines to households fell from **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL] [54]

During this same 27-month period, the number of residential wirelines served by wireline CLECs rose by **[BEGIN CONFIDENTIAL]**

51. *See* Exhibit VA-21.
52. *See* Exhibit VA-20.
53. *See* Exhibit RICH-19.
54. *See id.*
55. *See id.*
56. *See id.*
57. *See id.*

[END CONFIDENTIAL] [59]

Figure 1 also demonstrates the significance of intermodal competition from wireless telephony and from broadband plus VoIP "build your own" bundles. It shows that the ratio of combined Verizon and CLEC residential lines to households fell from **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL] [60] Assuming people have not stopped using voice telephony altogether, these data clearly indicate that wireless and broadband providers are competing effectively with both Verizon and other traditional wireline providers – a conclusion which is consistent with the high rates of wireless telephony usage and broadband adoption discussed above.

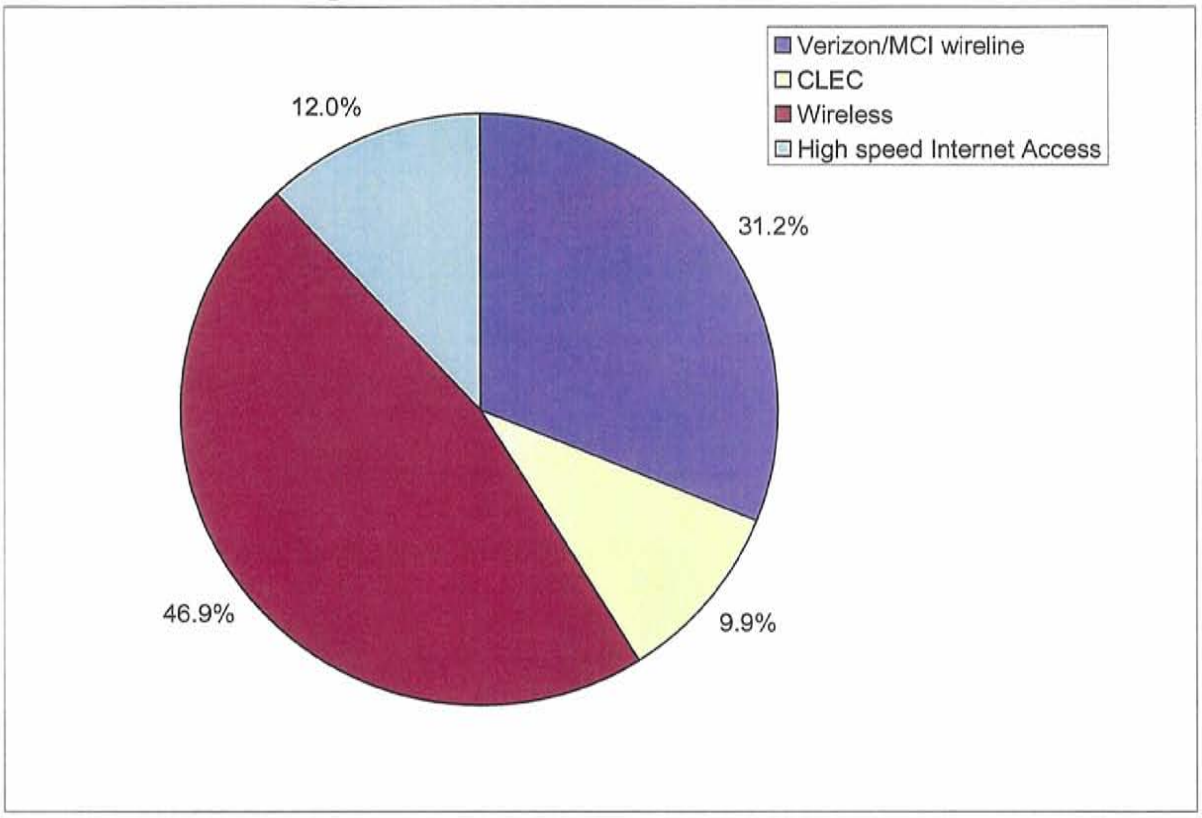
[BEGIN CONFIDENTIAL]

[END CONFIDENTIAL]

58. *See id.*
59. *See id.*
60. *See id.*

Another perspective on Verizon's loss of overall share is shown in Figure 2 below, which shows the percentage of total connections – including wireline telephony, wireless telephony and broadband connections – served by Verizon, based on the survey conducted by Mr. Newman. As the figure shows, Verizon voice lines now account for only 31.2 percent of all wireline telephony, wireless telephony and broadband connections.[61].

Figure 2: Verizon Share of Total Connections



IV. POTENTIAL COMPETITION AND ENTRY

While it is clear from the evidence presented above that actual competition already in the marketplace is extensive, even in the absence of additional entry, it is equally clear that entry has occurred, is occurring and is likely to continue occurring in the future. Competition in the Richmond region is thus certain to become even more intense in the coming months and years.

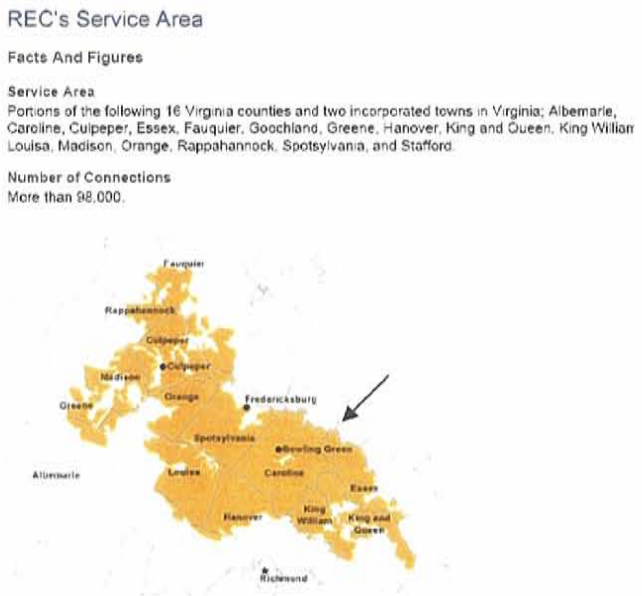
First, as in the other former Adelphia territories, Comcast has announced its intention to upgrade the former Adelphia system and thus expand its offering of cable telephony services to an additional 51,000 homes, or approximately 12 percent of the population. Thus, by the end of 2007, the number of households covered by cable telephony is projected to rise to 87.1 percent.

61. *See* Exhibit VA-22.

Charter is also committed to rolling out cable telephony to nearly 5,000 customers in rural Caroline County, thereby raising the proportion of households covered to over 88 percent.[62]

Second, In May 2006, Virginia Broadband LCC announced that it had entered a partnership with Rappahannock Electric Cooperative (REC) to expand its service territory throughout the 16 counties served by REC,[63] which includes the rural areas of King and Queen County and King William County, as well as expanded service in Caroline County, within the next 12 months. About 30 percent of REC's service area, covering between 30,000 and 40,000 residents, should be completed by the end of 2006,[64] and REC expects VABB to be serving its entire service area within the next three years.[65] In fact, the company has just completed installation of a new antenna on a Carmel Church water tower and is offering service in the Carmel Church area of Caroline County.[66]

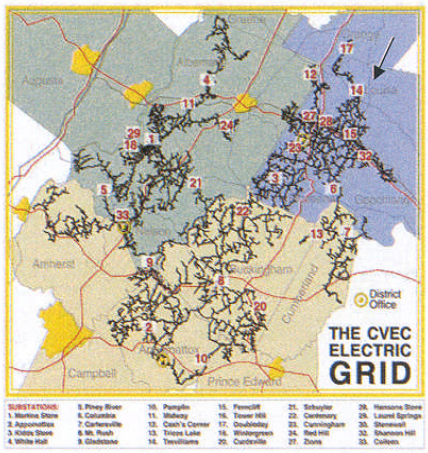
Figure 3: Rappahannock Electric Cooperative Service Territory



62. *See* West Testimony at 44.
63. Meghann Cotter, *REC Plans to Roll Out Broadband Service*, FREDERICKSBURG.COM (May 20, 2006), *available at* http://fredericksburg.com/News/FLS/2006/052006/05202006/192464/printer_friendly.
64. *See id. See also* Kayleigh Kulp, *Partnership Will Make Hi-Speed Internet Available to Underserved Areas*, WFLS NEWS (May 19, 2006), *available at* http://Fredericksburg.com/News/FLS/2006/052006/05192006/1148045186.
65. Cotter, *supra* note 48.
66. *See* Elizabeth Krietsch, *Caroline gets faster Web link,* FREDERICKSBURG FREELANCE-STAR Nov. 30, 2006, *available at* http://fredericksburg.com/News/FLS/2006/112006/11302006/240548.

Third, the Richmond region is also scheduled to begin receiving BPL service from the Central Virginia Electric Cooperative, which, in combination with International Broadband Electric Communications, Inc. ("IBEC"), is in the process of deploying a BPL infrastructure over its entire service territory, including Goochland and Louisa counties.[67]

Figure 4: Central Virginia Electric Cooperative Service Territory



Fourth, Cricket (i.e., LEAP Wireless) was the successful bidder in the recent AWS auctions for spectrum in Richmond, Petersburg and Caroline County.[68] Cricket is a cellular phone company (a subsidiary of Leap Wireless) which specializes in offering calling plans with unlimited minutes, advertising its service as an alternative to landline voice.[69] Its entry into the Richmond region will give consumers an additional wireless service option, this one aimed specifically at "cord cutters."

Facilities-based CLECs could expand their offerings in the region without significant additional investments. Cavalier, which has made a major commitment to the region through deployment of its triple-play offering, **[BEGIN CONFIDENTIAL]**

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67. *See* BPL Co-op, Project Update, http://www.forcvec.com/bplcoop/Update%20Page.html (last visited Nov. 21, 2006); BPL Co-op, Coverage Map, http://www.forcvec.com/bplcoop/where/CVEC_Substations.html (last visited Nov. 21, 2006).
68. *See* FCC, Auction 66 – Advanced Wireless Services (AWS -1), *available at* http://wireless.fcc.gov/auctions/default.htm?job=auction_summary&id=66 (last visited Nov. 21, 2006).
69. *See* Cricket, Who We Are, http://www.mycricket.com/about/who/ (last visited Nov. 21, 2006), Leap Wireless; Our Cricket Service, http://www.leapwireless.com/l1_our_cricket_service.htm (last visited November 21, 2006). *See also* Press Release, Leap Wireless, Leap and Denali Announce Successful Participation in FCC's Auction #66; Disciplined Bidding Strategy to Increase Consolidated Spectrum Holdings to 182 Million POPs (Sep. 20, 2006), *available at* http://phx.corporate-ir.net/phoenix.zhtml?c=191722&p=irol-newsArticle&ID=907235&highlight=.
70. *See id.*

[END CONFIDENTIAL]

As the record of successful entry in the past would suggest, there are no meaningful barriers to entry in the Richmond region. The region has extensive access to long-haul fiber and multiple points of presence,[71] and while much of the population lives in urban areas, a significant portion of the land area is rural, and thus potentially eligible for funding from the RUS. Moreover, three of the fourteen counties[72] in the Richmond MSA (Amelia, Dinwiddie, and Sussex) are eligible for support from the Tobacco Commission.[73]

V. CONCLUSION

Competition for retail telephone services in the Richmond region is intense and certain to become more intense in coming years. By every measure, Verizon is already losing customers to traditional CLECs, cable telephony providers and intermodal competitors at a rapid pace, and this decline is taking place *at current prices.* Robust competitors such as Cavalier and Comcast continue to make substantial investments in the region, *at current prices.* If Verizon were to raise prices, it would both accelerate the rate at which it is losing customers to existing competitive services,[74] and increase the rate at which competitors and potential competitors deploy new services. The current state of competition is already adequate to regulate the price of Verizon's retail telephone services in this region, and continuing entry is certain to further erode its competitive position.

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71. *See* Eisenach Testimony at III.B. and Exhibit VA-18.
72. Richmond has fifteen counties, but Cumberland, which is Tobacco Fund eligible, is not in Verizon's service area.
73. *See* Eisenach Testimony at Table 2.
74. An analysis conducted by Mr. Taylor, based on the alternatives currently in the market today, estimates that a decision by Verizon to raise prices by 5 percent in the Richmond MSA would result in a ***net*** revenue loss of **[BEGIN CONFIDENTIAL]** **[END CONFIDENTIAL]** annually. *See* Taylor Testimony, Table 14 at 94.

RICH-3

Wire Centers by Rate Group, Exchange, City and County

REGION	LOC ST	WIRECENTER	LOCATION NAME	Rate Group	Exchange	CENTRAL OFFICE CITY	COUNTY
RICHMOND, VA	VA-E	ASLDVAAS	ASHLAND VA	08B	ASHLAND	ASHLAND	Hanover
		BCKNVABC	BUCKNER VA	03	MINERAL	BUCKNER	Louisa
		BTHIVABT	BETHIA VA	08B	BETHIA/RICHMOND/CHESTER	MIDLOTHIAN	Chesterfield
		CHCYVACC	CHARLES CITY VA	08B	CHARLES CITY	CHARLES CITY	Charles City
		CHESVACR	CHESTER VA	08B	CHESTER	CHESTER	Chesterfield
		CLHGVACO	COLONIAL HEIGHTS	08B	PETERSBURG	COLONIAL HEIGHTS	Colonial Heights City
		DNWDVADW	DINWIDDIE VA	08B	DINWIDDIE	DINWIDDIE	Dinwiddie
		GCLDVAGO	GOOCHLAND VA	08B	GOOCHLAND	GOOCHLAND	Goochland
		HPWLVAHW	HOPEWELL VA	08B	HOPEWELL/ENON	HOPEWELL	Hopewell City
		LOUSVALU	LOUISA VA	05	LOUISA	LOUISA	Louisa
		MCHVVAMV	MECHANICSVILLE V	07	MECHANICSVILLE	MECHANICSVILLE	Hanover
		MCKYVAMK	MCKENNEY VA	08B	MCKENNEY	MCKENNEY	Dinwiddie
		MDLTVAMD	MIDLOTHIAN VA	07	MIDLOTHIAN	MIDLOTHIAN	Chesterfield
		MNKNVAMN	MANAKIN VA	08B	MANAKIN	MANAKIN	Goochland
		MNRLVAML	MINERAL VA	03	MINERAL	MINERAL	Louisa
		PRFRVAPF	PROVIDENCE FORG	08B	PROVIDENCE FORGE	PROVIDENCE FORGE	New Kent
		PTBGVACD	CHESDIN VA	08B	PETERSBURG	PETERSBURG	Prince George
		PTBGVAPB	PETERSBURG VA	08B	PETERSBURG	PETERSBURG	Petersburg City
		PWHTVAPW	POWHATAN VA	08B	POWHATAN	POWHATAN	Powhatan
		QNTNVAQN	QUINTON VA	08B	PROVIDENCE FORGE	QUINTON	New Kent
		RCMDVACG	COGBILL VA	07	RICHMOND	RICHMOND	Chesterfield
		RCMDVAGK	GASKINS VA	07	RICHMOND	RICHMOND	Henrico
		RCMDVAGR	GRACE VA	07	RICHMOND	RICHMOND	Richmond City
		RCMDVAGY	GAYTON ROAD VA	07	RICHMOND	RICHMOND	Henrico
		RCMDVAHL	HULL STREET VA	07	RICHMOND	RICHMOND	Richmond City
		RCMDVAHR	HERMITAGE VA	07	RICHMOND	RICHMOND	Henrico
		RCMDVAHS	HUNGARY SPRING	07	RICHMOND	RICHMOND	Henrico
		RCMDVAIT	TURNER ROAD VA	07	RICHMOND	RICHMOND	Chesterfield
		RCMDVALS	LOGAN VA	07	RICHMOND	RICHMOND	Chesterfield
		RCMDVAPE	PEMBERTON VA	07	RICHMOND	RICHMOND	Henrico
		RCMDVAPS	PATTERSON VA	07	RICHMOND	RICHMOND	Henrico
		RCMDVARA	RANDALL VA	07	RICHMOND	RICHMOND	Henrico
		RCMDVASN	SECOND AVE. VA	07	RICHMOND	RICHMOND	Richmond City
		RCMDVASR	STUART VA	07	RICHMOND	RICHMOND	Richmond City
		RCMDVATC	THE CROSSINGS V/	08B	ASHLAND	RICHMOND	Henrico
		RKVLVARK	ROCKVILLE VA	08B	ROCKVILLE	ROCKVILLE	Hanover
		SNTNVASS	SANDSTON VA	07	SANDSTON/MECHANICSVILLE	SANDSTON	Henrico
		VARNVAVR	VARINA VA	07	VARINA	VARINA	Henrico
		WHOKVAWO	WHITE OAK VA	08B	DINWIDDIE	PETERSBURG	Dinwiddie

Wire Centers by Rate Group, Exchange, City and County

REGION	LOC ST	WIRECENTER	LOCATION NAME	Rate Group	Exchange	CENTRAL OFFICE CITY	COUNTY
RICHMOND, VA	VA-E	WSPNVAWP	WEST POINT VA	08B	WEST POINT	WEST POINT	King William
		WVRLVAWV	WAVERLY VA	08B	WAVERLY	WAVERLY	Sussex
	VA-S	BWLGVAXA	BOWLING GREEN	09	BOWLING GREEN	BOWLING GREEN	Caroline
		DAWNVAXA	DAWN	08	DAWN	DAWN	Caroline
		DSPAVAXA	DISPUTANTA	08	DISPUTANTA	DISPUTANTA	Prince George
		DSWLVAXA	DOSWELL	04	DOSWELL	DOSWELL	Hanover
		HNVRVAXA	HANOVER	10	HANOVER	HANOVER	Hanover
		KGQNVAXA	KING & QUEEN	08	KING & QUEEN	KING & QUEEN	King and Queen
		KGWLVAXA	KING WILLIAM	07	KING WILLIAM	KING WILLIAM	King William
		LDYSVAXA	LADYSMITH	07	LADYSMITH	LADYSMITH	Caroline
		OLCHVAXA	OLD CHURCH	10	OLD CHURCH	OLD CHURCH	Hanover
		PTRYVAXA	PORT ROYAL	09	PORT ROYAL	PORT ROYAL	Caroline
		STCKVAXA	STONY CREEK	09	STONY CREEK	STONY CREEK	Sussex
		WKFDVAXA	WAKEFIELD	07	WAKEFIELD	WAKEFIELD	Sussex

RICH-4

CONFIDENTIAL

EXHIBIT RICH-4

RICH-5

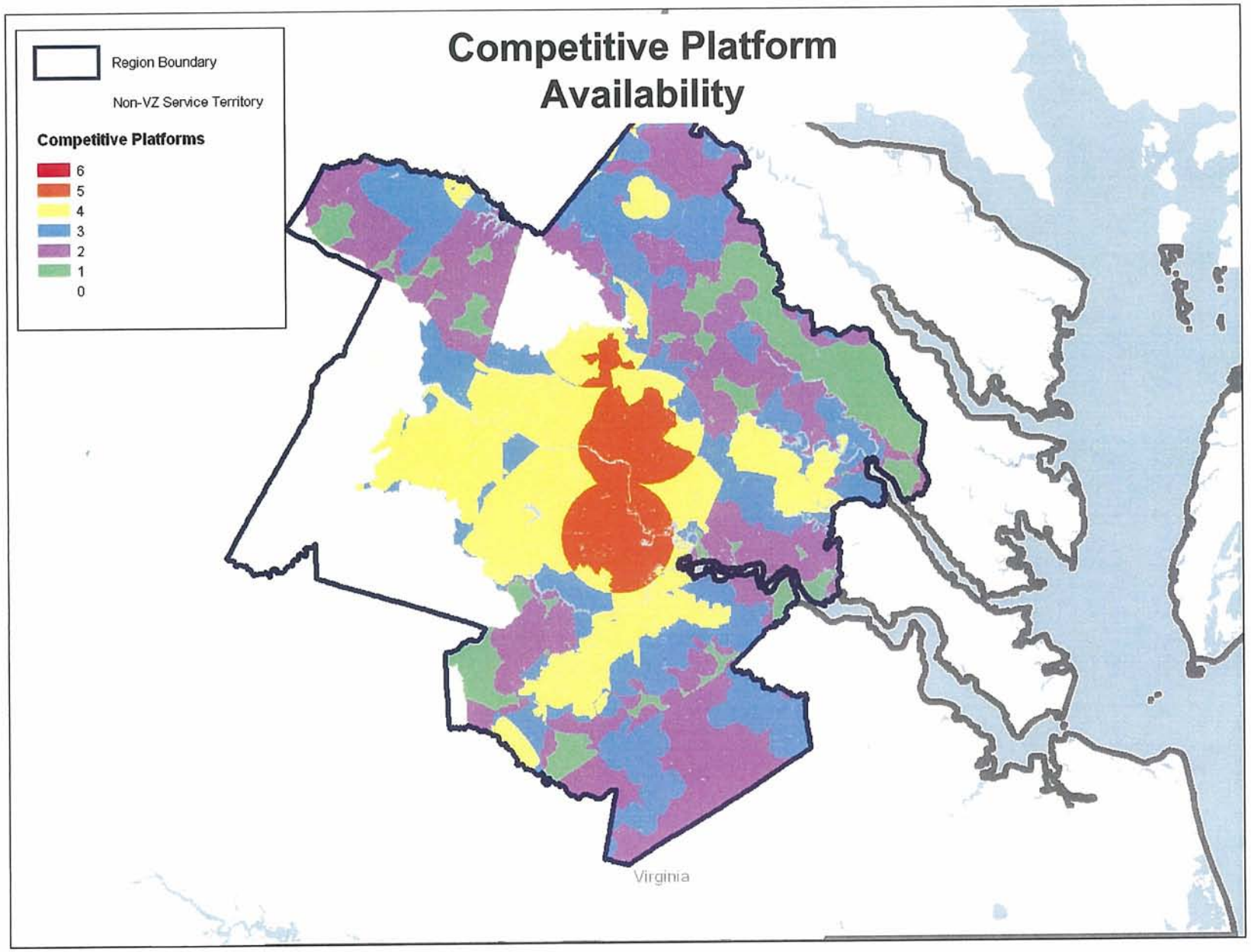


Exhibit RICH-5

RICH-6

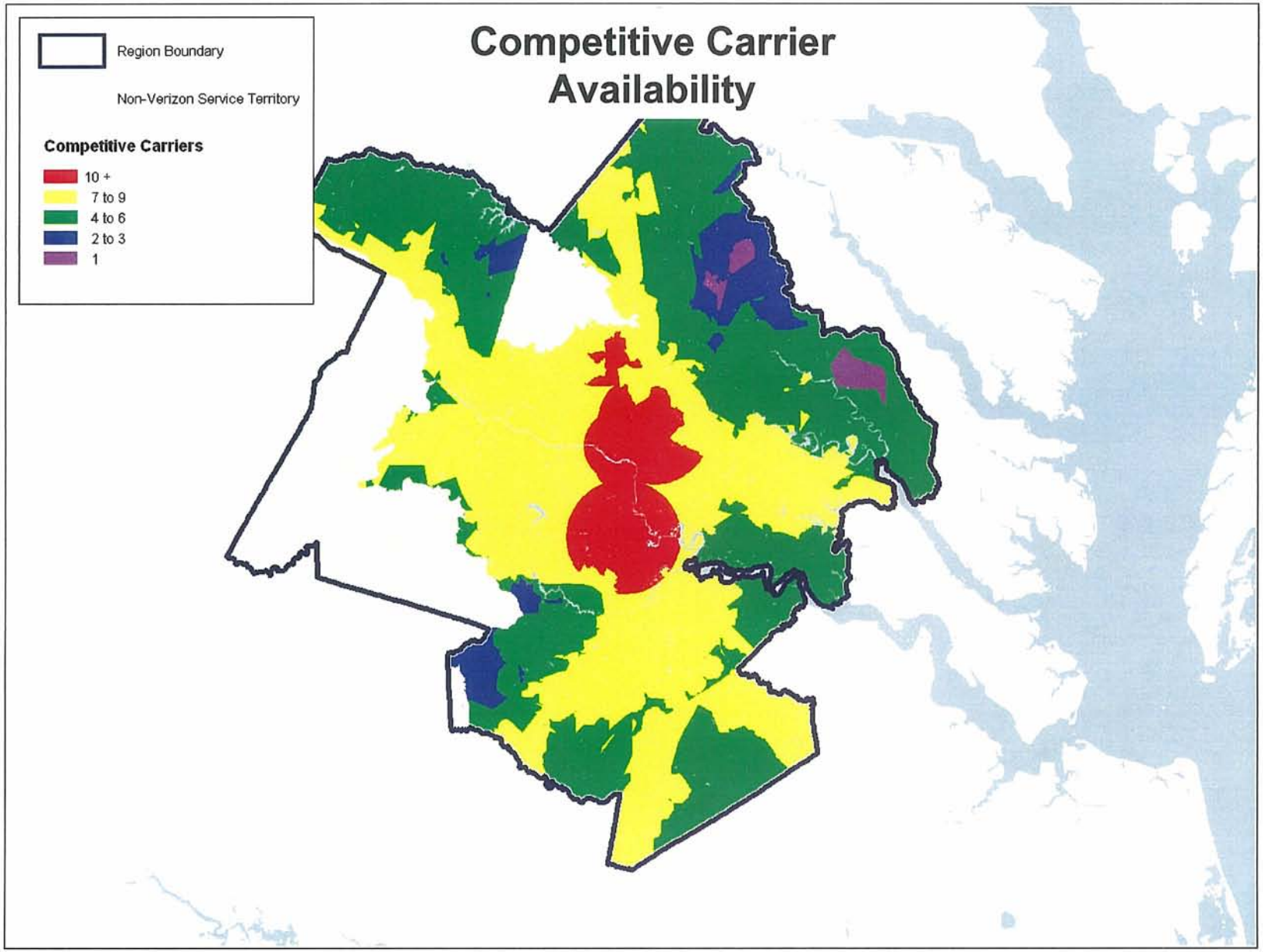


Exhibit RICH-6

RICH-7

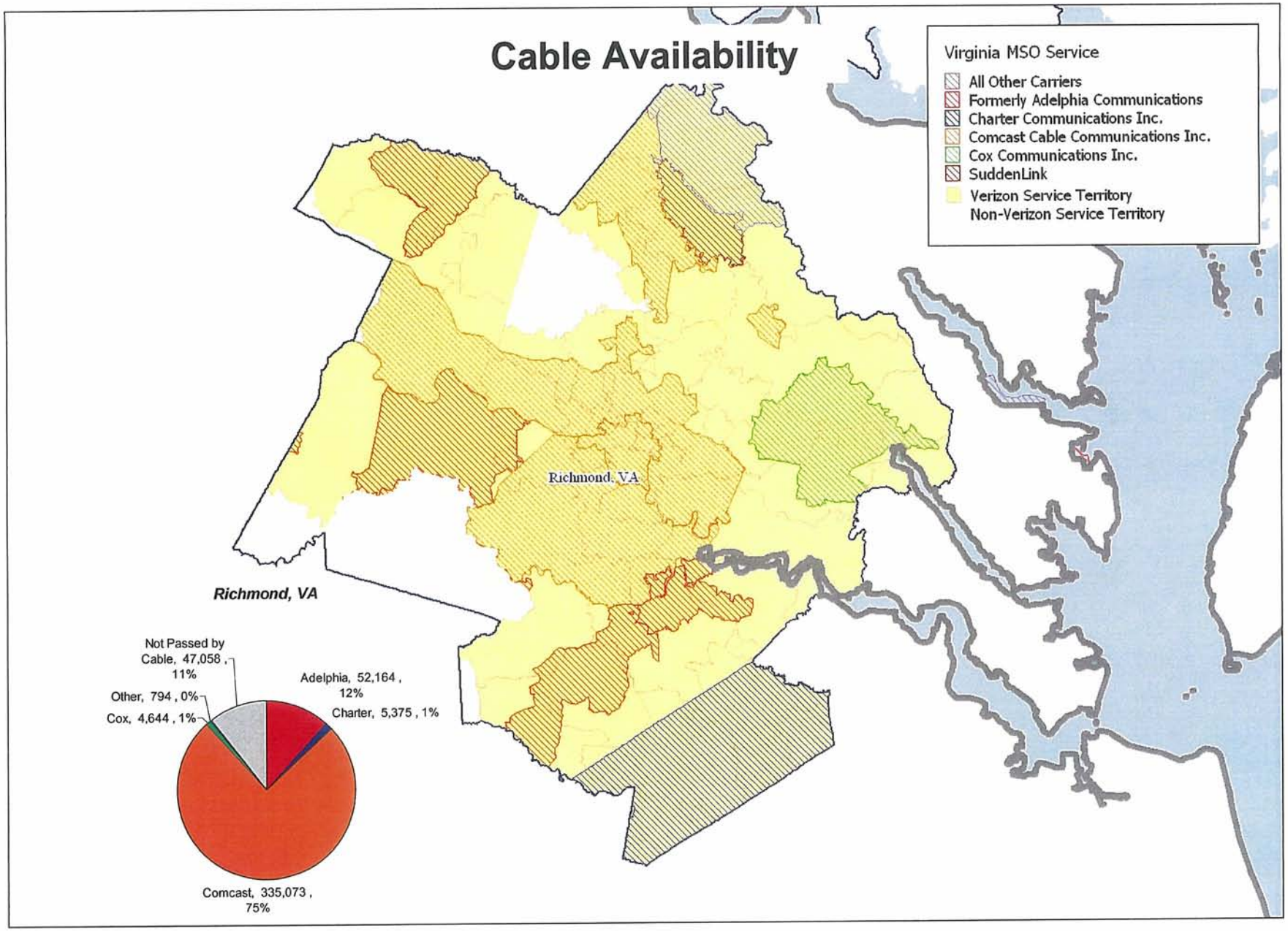


Exhibit RICH-7

Note: HH numbers reflect only those households in Verizon's Service Territory

RICH-8

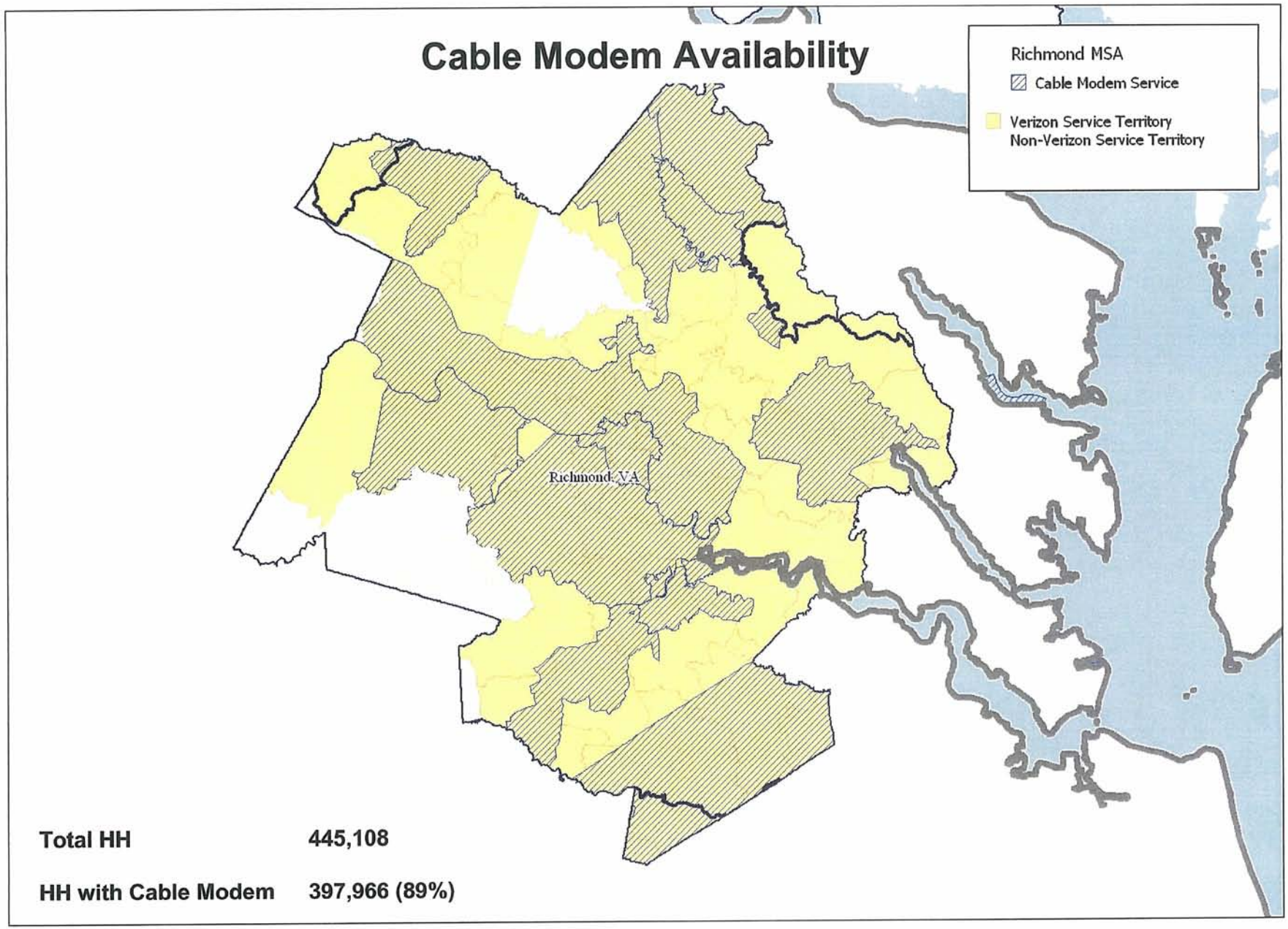


Exhibit RICH-8

Note: HH numbers reflect only those households in Verizon's Service Territory

RICH-9

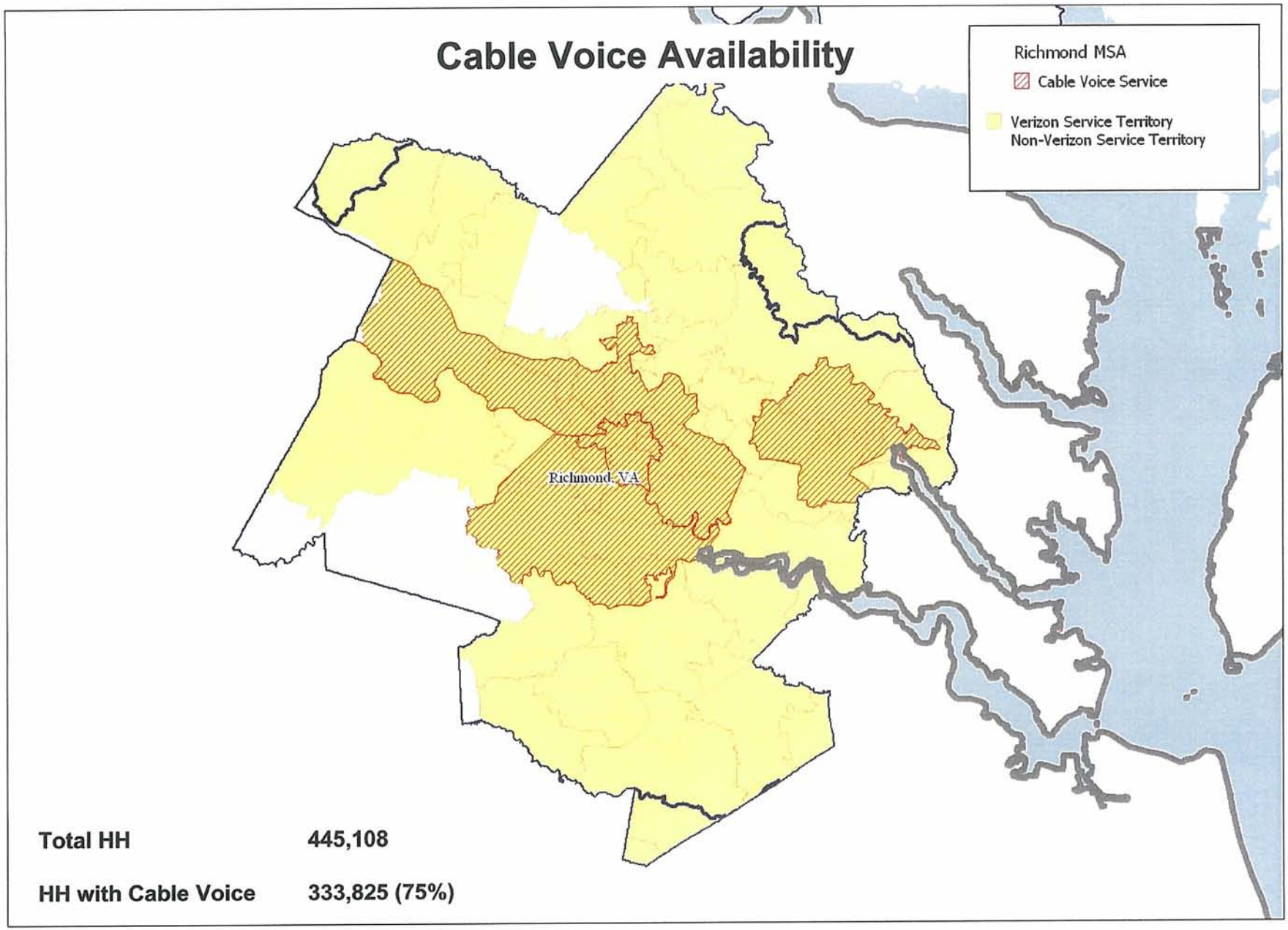


Exhibit RICH-9

Note: HH numbers reflect only those households in Verizon's Service Territory

RICH-10

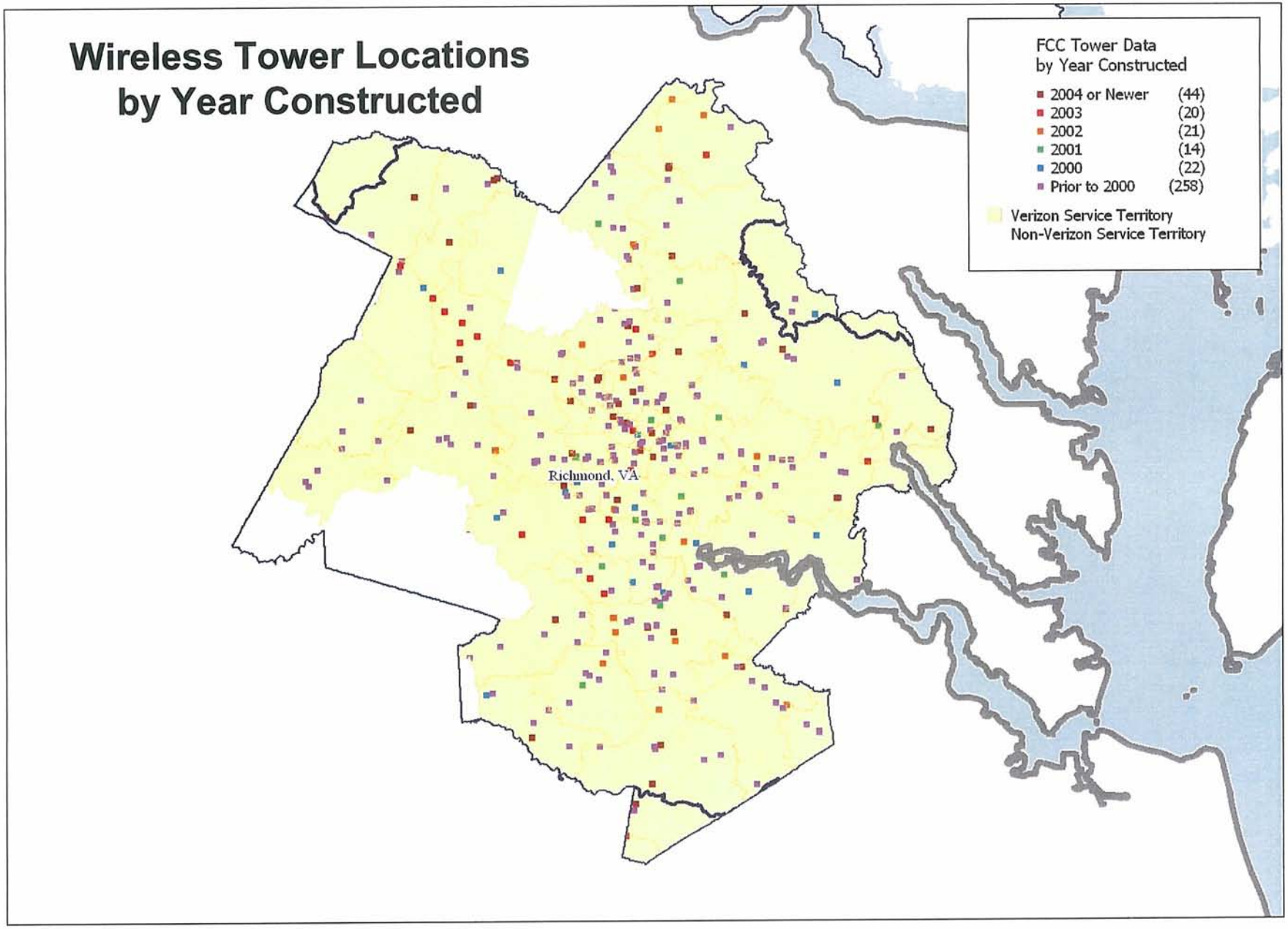
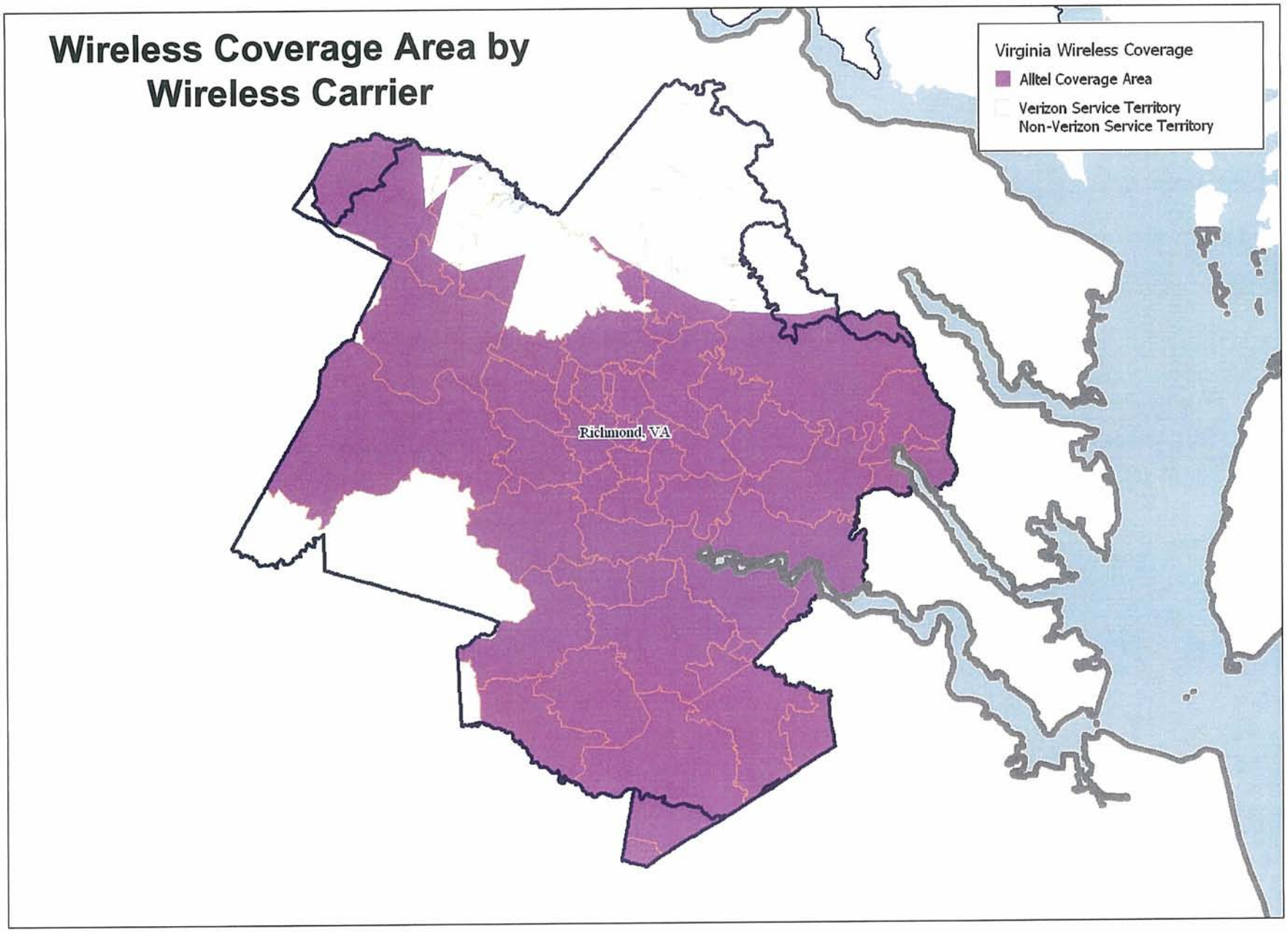
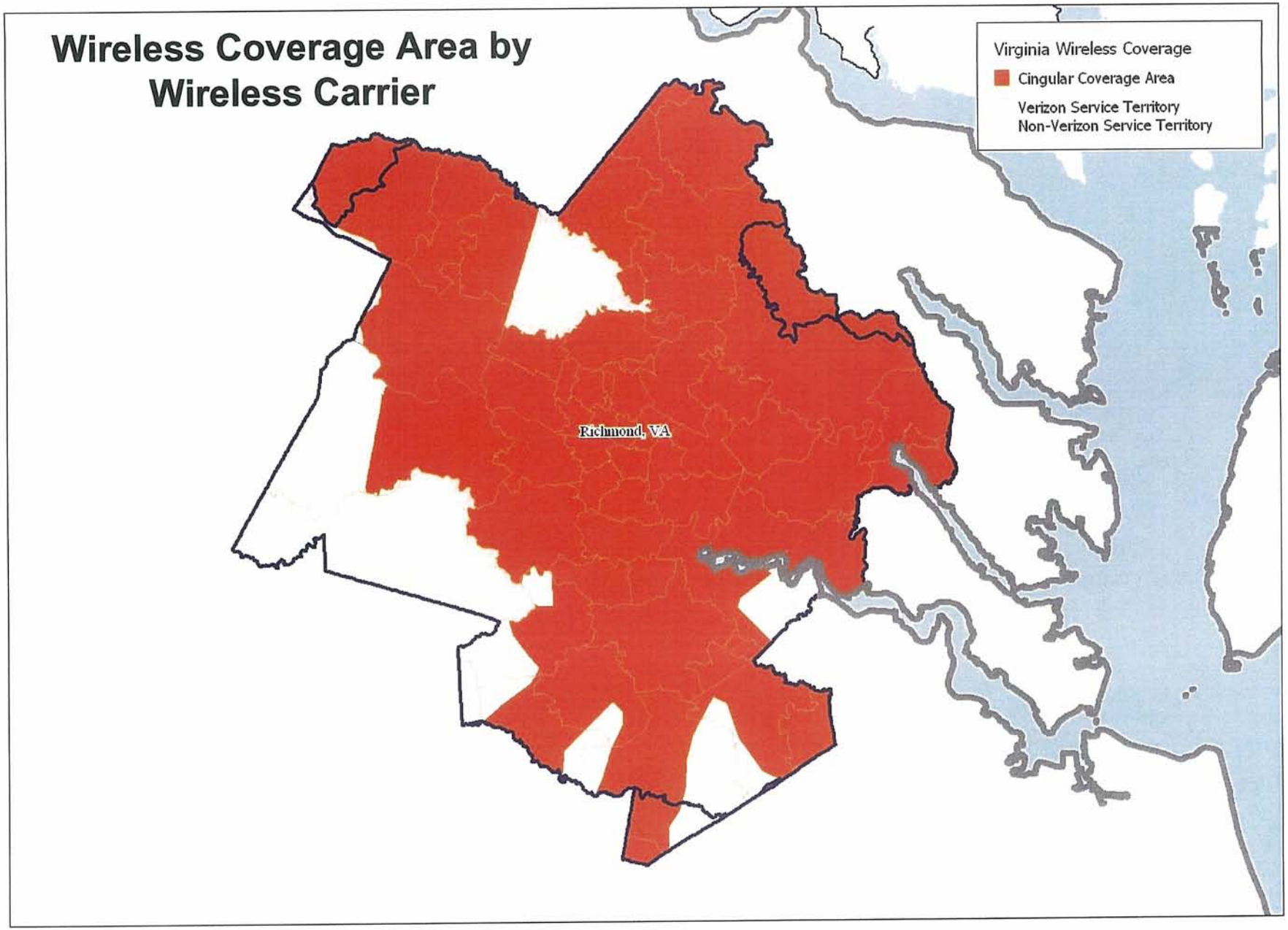
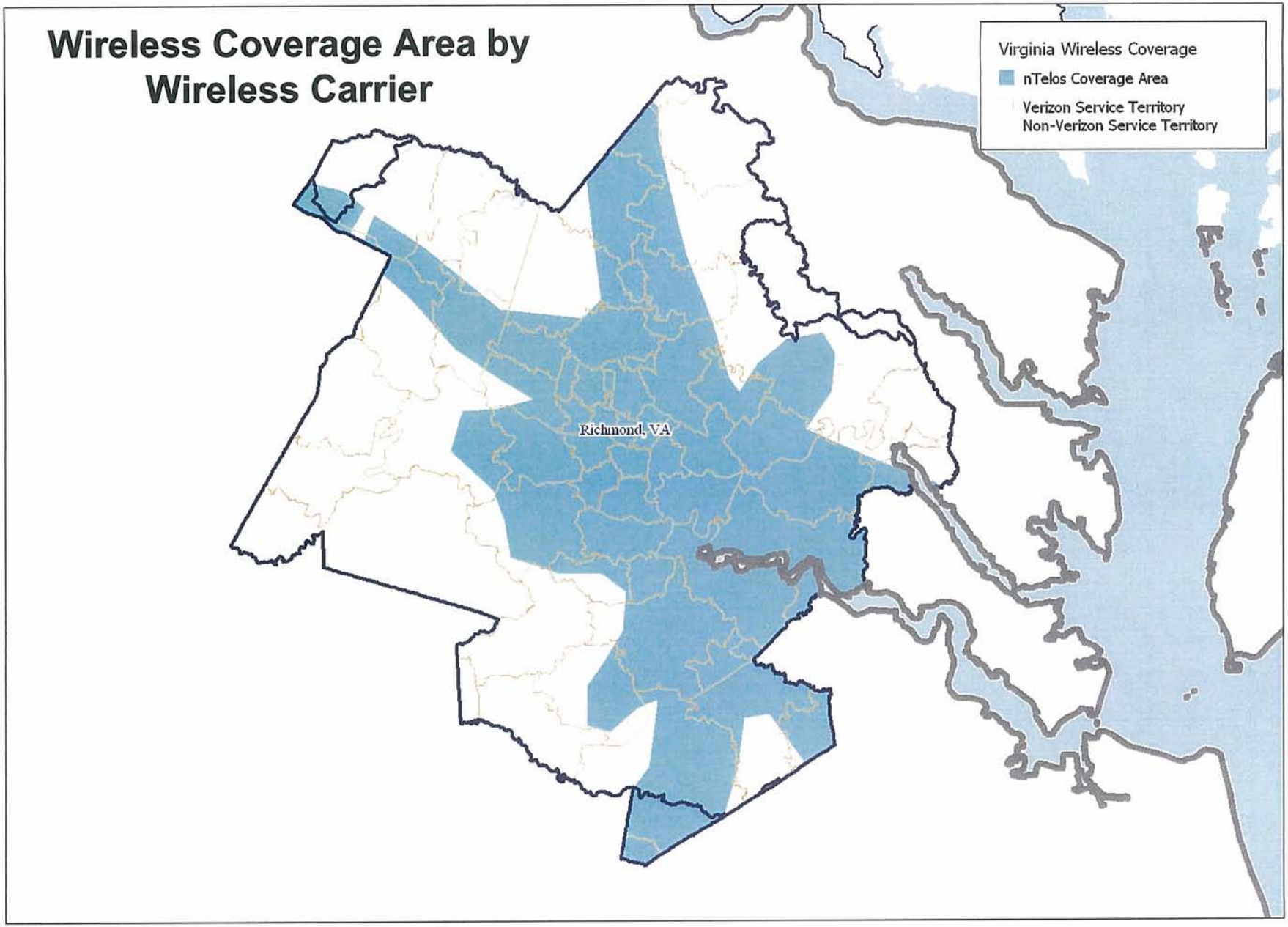


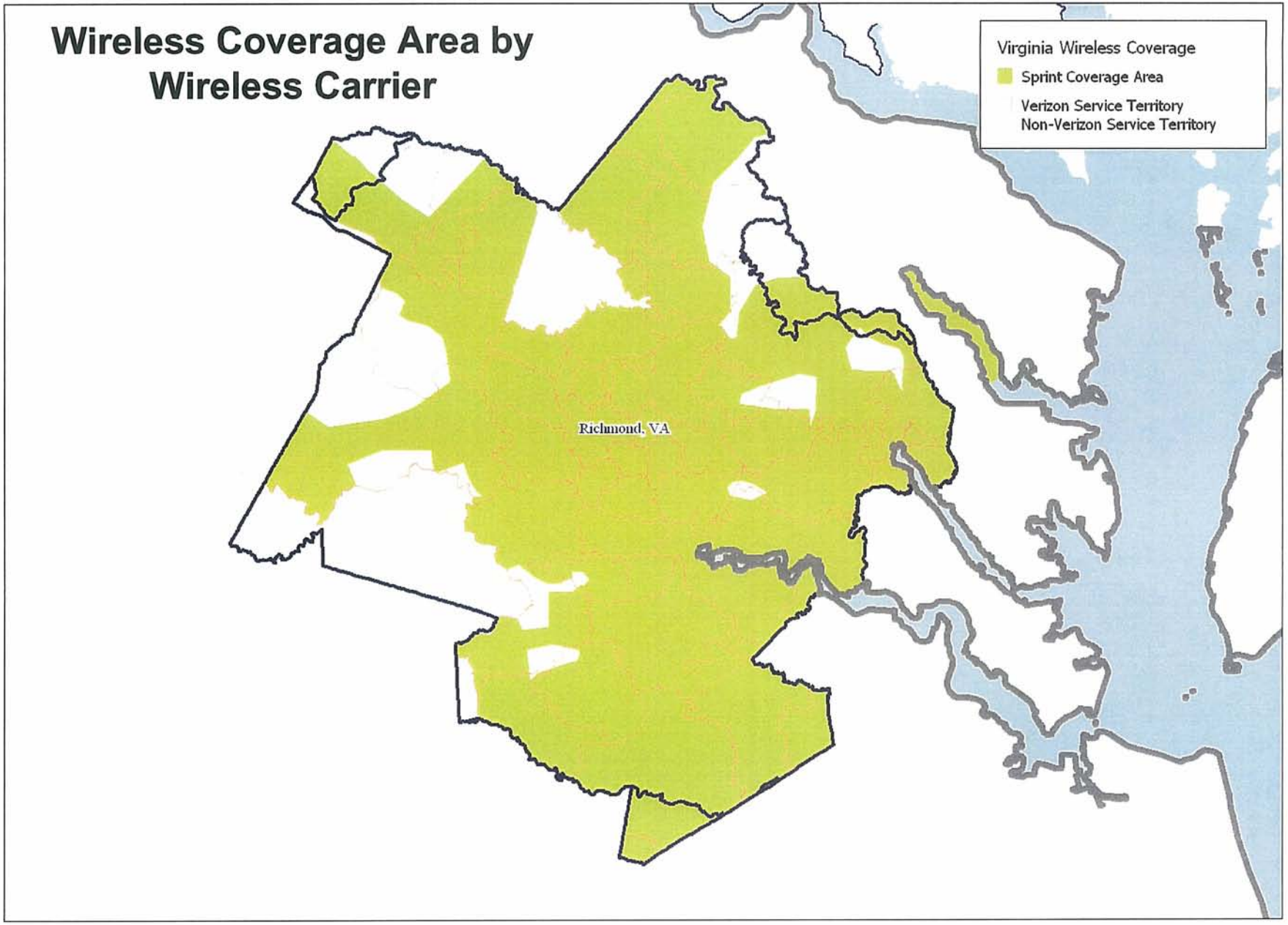
Exhibit RICH-10

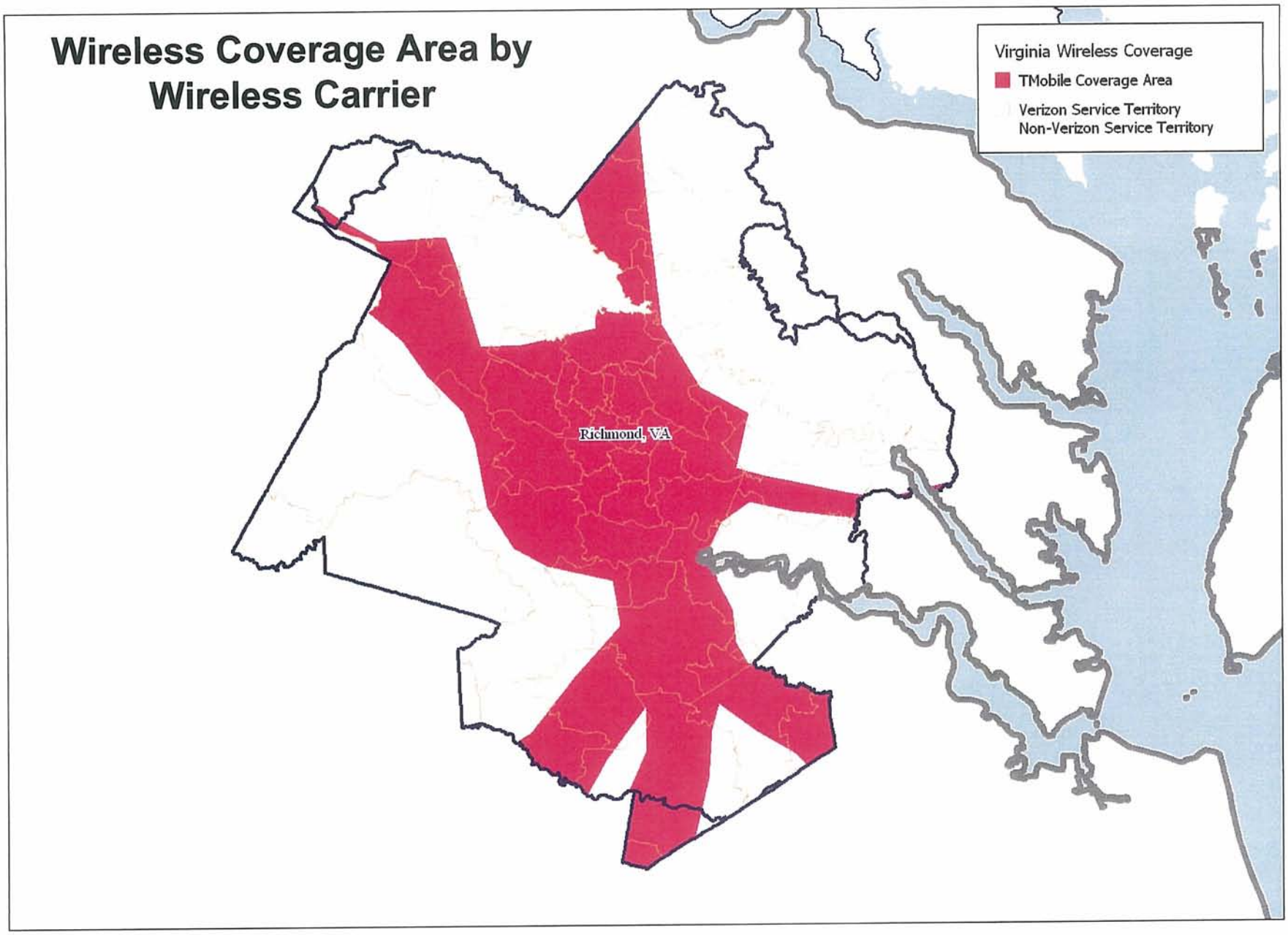
RICH-11

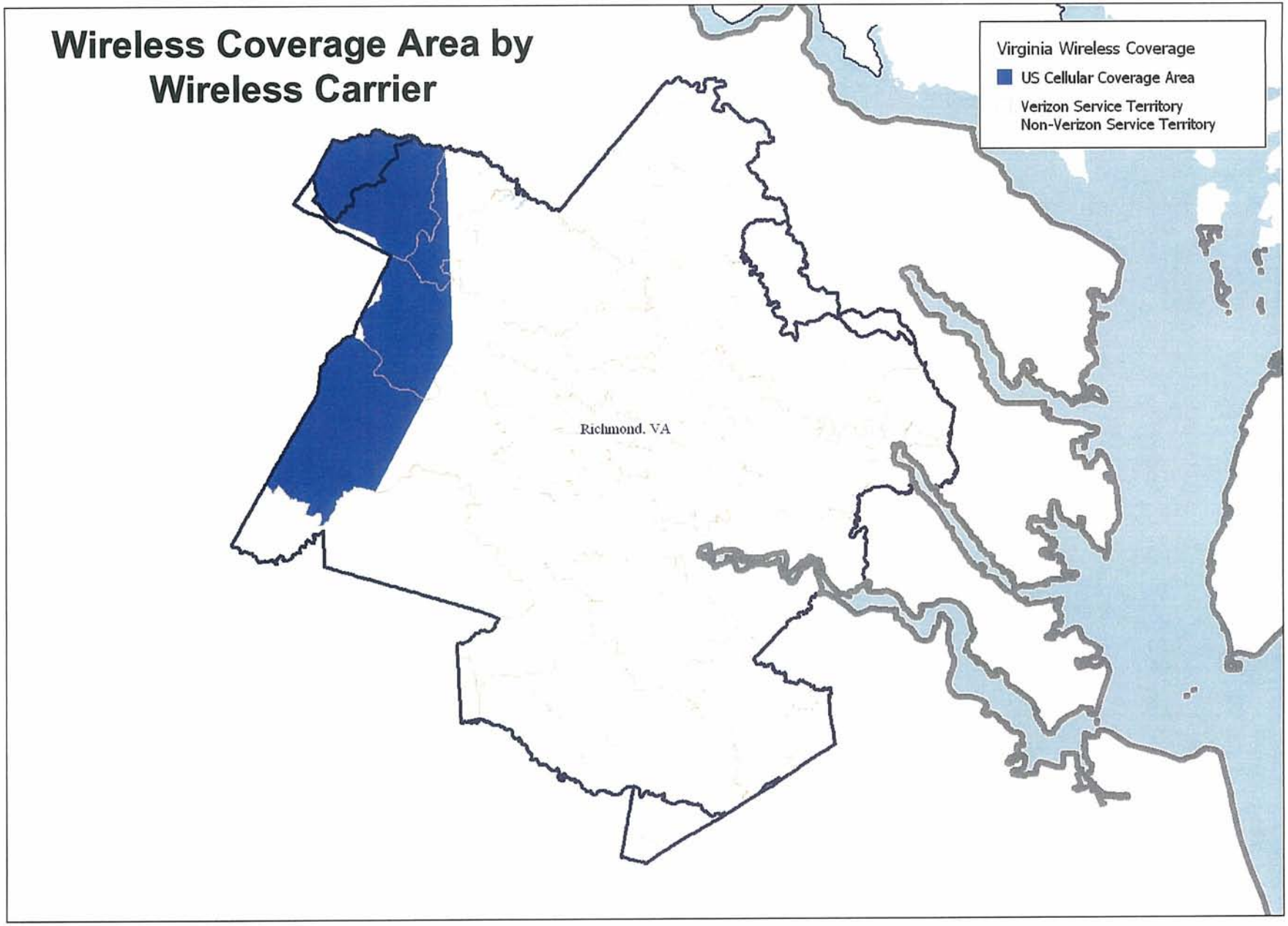

Wireless Coverage Area by
Wireless Carrier
Virginia Wireless Coverage
Alltel Coverage Area
Verizon Service Territory
Non-Verizon Service Territory
Richmond, VA

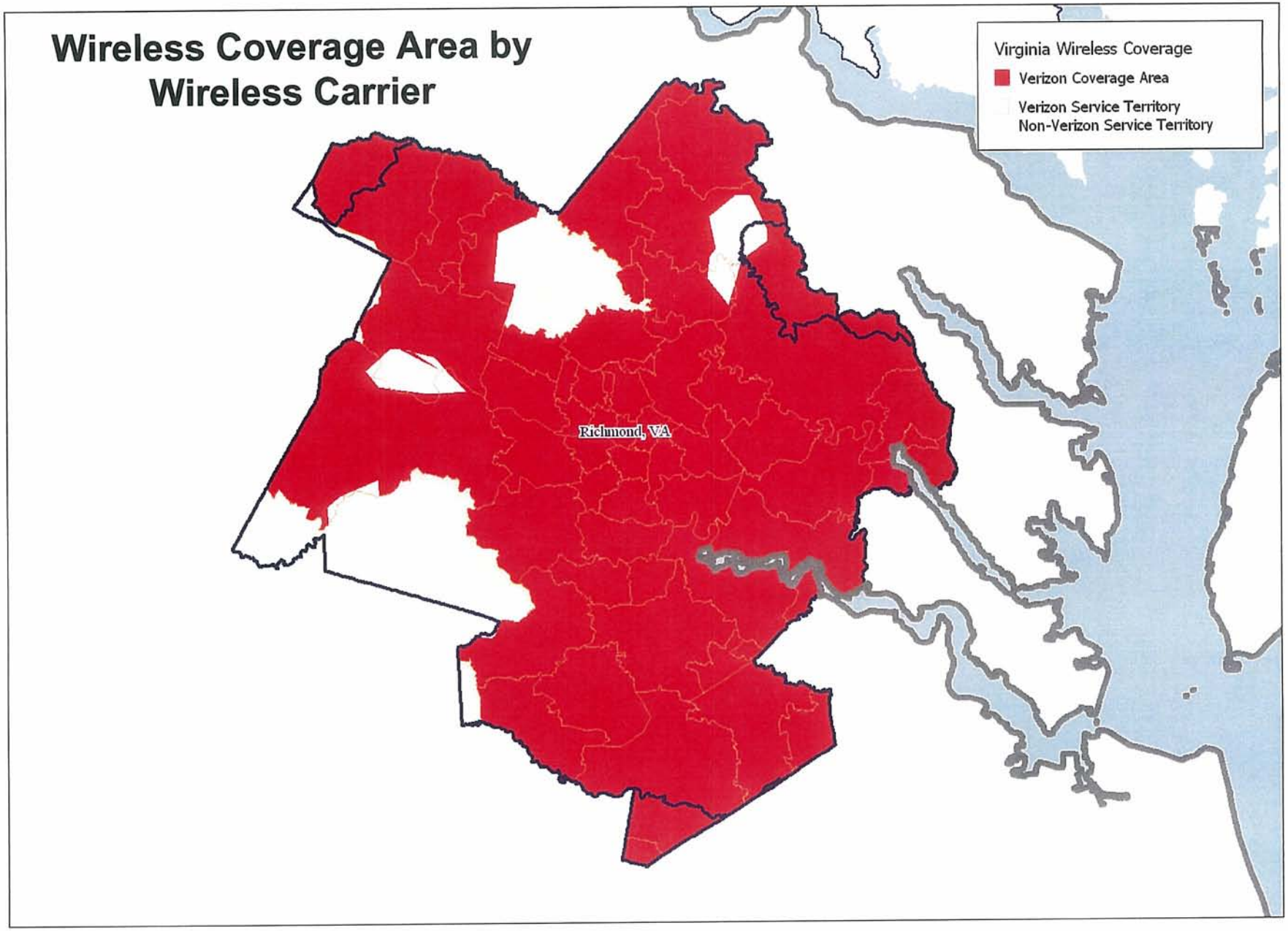

Wireless Coverage Area by
Wireless Carrier
Virginia Wireless Coverage
Cingular Coverage Area
Verizon Service Territory
Non-Verizon Service Territory
Richmond, VA


Wireless Coverage Area by
Wireless Carrier
Virginia Wireless Coverage
nTelos Coverage Area
Verizon Service Territory
Non-Verizon Service Territory
Richmond, VA

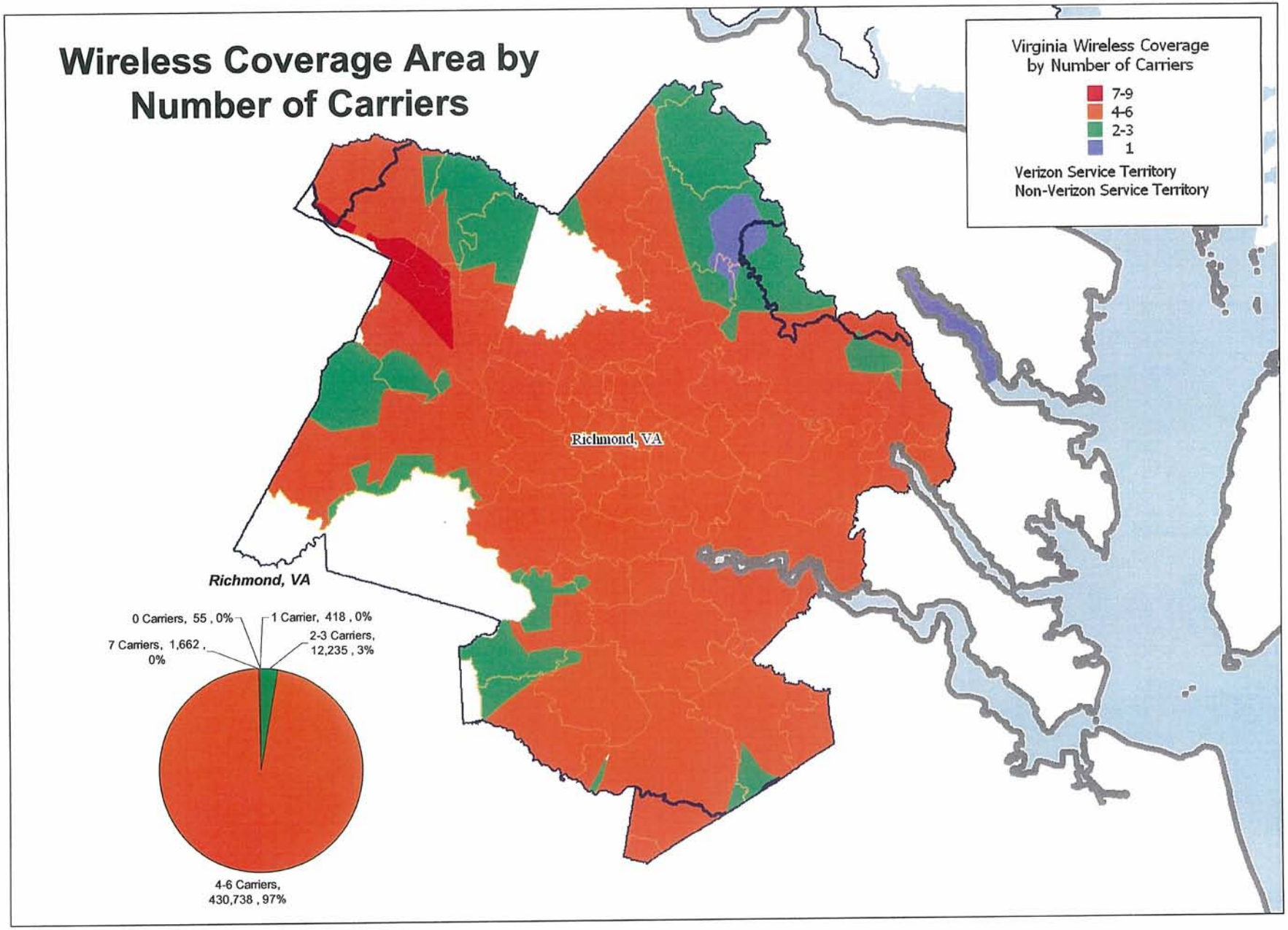

Wireless Coverage Area by
Wireless Carrier
Virginia Wireless Coverage
Sprint Coverage Area
Verizon Service Territory
Non-Verizon Service Territory
Richmond, VA


Wireless Coverage Area by
Wireless Carrier
Virginia Wireless Coverage
TMobile Coverage Area
Verizon Service Territory
Non-Verizon Service Territory
Richmond, VA


Wireless Coverage Area by
Wireless Carrier
Virginia Wireless Coverage
US Cellular Coverage Area
Verizon Service Territory
Non-Verizon Service Territory
Richmond, VA


Wireless Coverage Area by
Wireless Carrier
Virginia Wireless Coverage
Verizon Coverage Area
Verizon Service Territory
Non-Verizon Service Territory
Richmond, VA

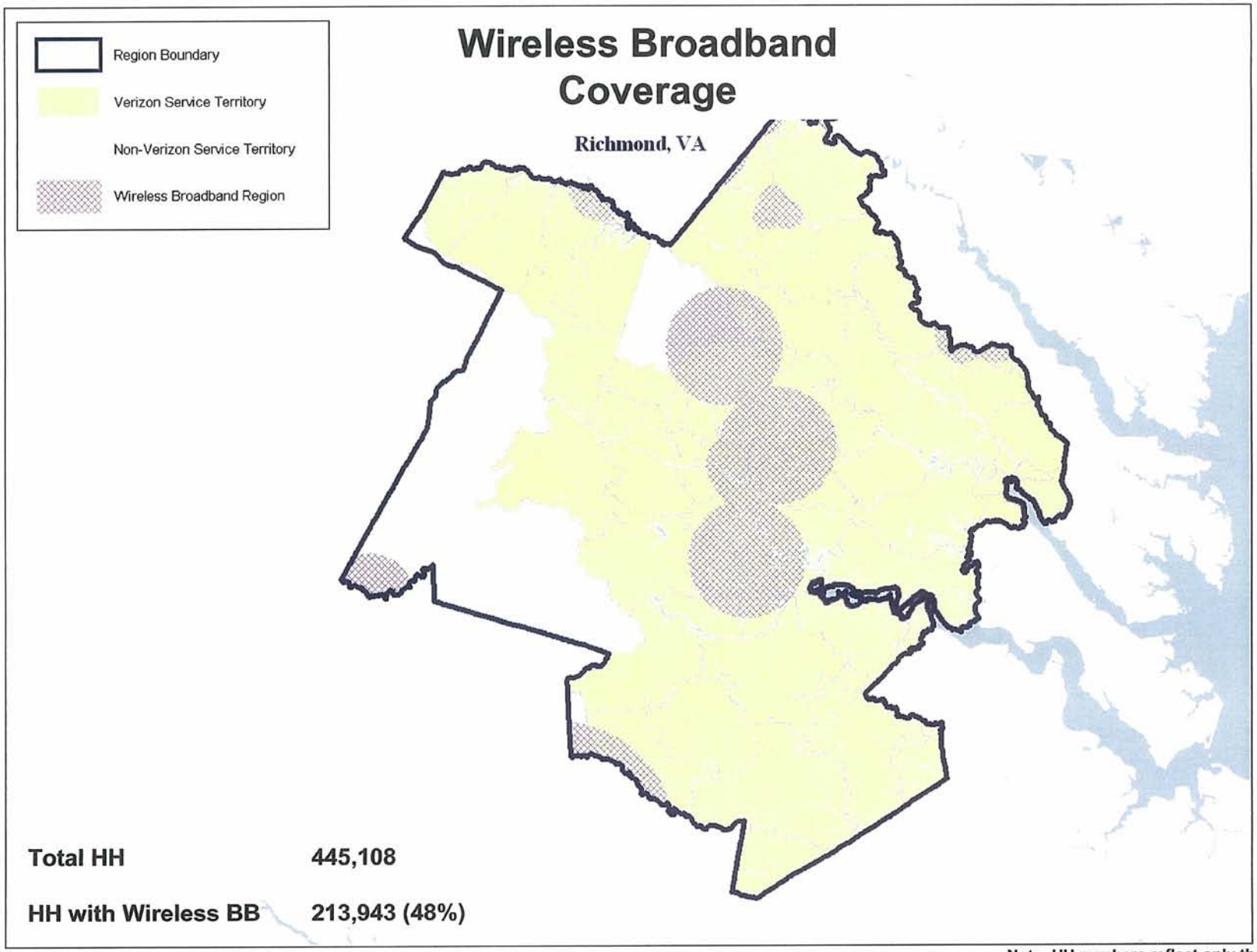
RICH-12



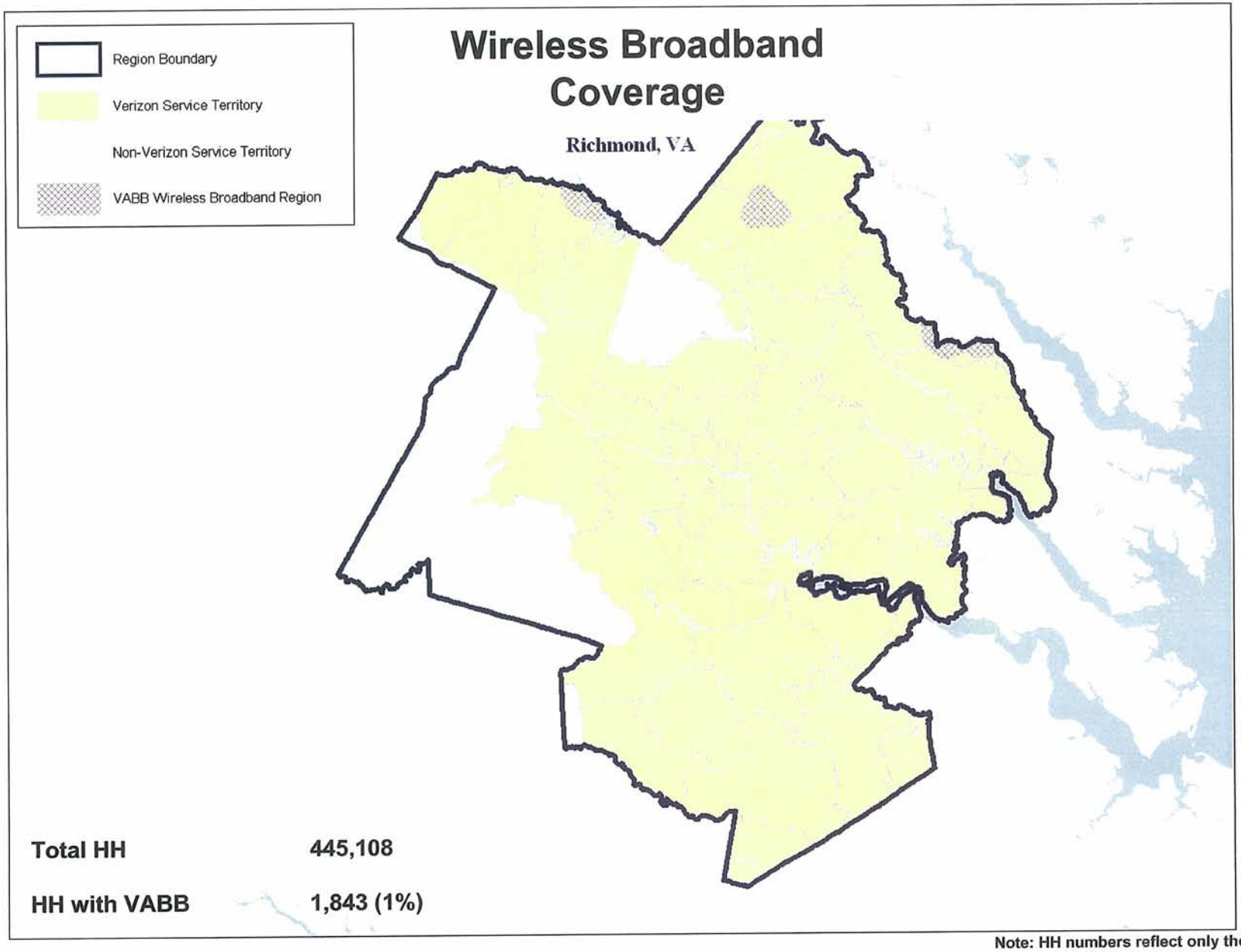
Note: HH numbers reflect only those households in Verizon's Service Territory

Exhibit RICH-12

RICH-13



Note: HH numbers reflect only those households in Verizon's Service Territory



Note: HH numbers reflect only those households in Verizon's Service Territory

Exhibit RICH-13, page 2 of 2

RICH-14

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EXHIBIT RICH-14

RICH-15

CONFIDENTIAL

EXHIBIT RICH-15

RICH-16

CONFIDENTIAL

EXHIBIT RICH-16

RICH-17

CONFIDENTIAL

EXHIBIT RICH-17

RICH-18

CONFIDENTIAL

EXHIBIT RICH-18

RICH-19

CONFIDENTIAL

EXHIBIT RICH-19